

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1-29. (Canceled)

1 1-52. (Canceled)

1 53. (New) A formatting template for printing an XML document, comprising an
2 XML Descriptor (XMD) associated with an XML data element of the XML document,
3 wherein the XMD is identified by an associated qualified tag having a concatenation of a
4 plurality of XML start tags representing start tags hierarchically traversed in the XML
5 document to reach the XML data element, the XMD providing formatting to content
6 associated with the XML data element.

1 54. (New) The formatting template of claim 53, wherein the data map comprises
2 a chain of XML descriptors for formatting attributes if XML elements.

1 55. (New) The formatting template of claim 53, wherein an XML descriptor that
2 does not have a matching qualified tag is skipped and a next XML descriptor matching a start
3 tag is used in formatting the XML data.

1 56. (New) A printing system, comprising:
2 a spooler for receiving printable information from the print channel;
3 a print services facility for parsing an XML file; and
4 a printer for printing the print steam according to the formatting defined by the
5 formatting template;
6 wherein the formatting template includes an XML Descriptor (XMD)
7 associated with an XML data element of the XML document, wherein the XMD is identified
8 by an associated qualified tag having a concatenation of a plurality of XML start tags
9 representing start tags hierarchically traversed in the XML document to reach the XML data
10 element, the XMD providing formatting to content associated with the XML data element.

1 57. (New) The formatting template of claim 56, wherein the data map comprises
2 a chain of XML descriptors for formatting attributes if XML elements.

1 58. (New) The formatting template of claim 56, wherein the parser skips an XML
2 descriptor that does not have a matching qualified tag and uses a next XML descriptor having
3 a matching start tag to format the XML data.

1 59. (New) The formatting template of claim 56 further comprising a buffer for
2 storing start tags in order as the XML file is parsed.

1 60. (New) A method for printing XML documents directly using a formatting
2 template, comprising:
3 placing an XML document to be printed on a server spool;
4 parsing the XML document to identify start tags hierarchically traversed in the XML
5 document to reach an XML data element;
6 searching a data map comprising XML descriptors identified by an associated
7 qualified tag having a concatenation of a plurality of XML start tags until a qualified tag
8 associated with an XML descriptor matches the identified start tags hierarchically traversed
9 in the XML document to reach the XML data element;
10 formatting the XML data element according the XML descriptor associated with the
11 qualified tag having a concatenation of a plurality of XML start tags matching the identified
12 start tags hierarchically traversed in the XML document to reach the XML data element;
13 merging the XML element associated with the XML descriptor associated with the
14 qualified tag having a concatenation of a plurality of XML start tags matching the identified
15 start tags hierarchically traversed in the XML document to reach the XML data element to
16 produce a formatted print data stream; and
17 printing a document using the produced formatted print data stream.

1 61. (New) The method of claim 60 further comprising skipping an XML
2 descriptor that does not have a matching qualified tag and using a next XML descriptor
3 matching a start tag to format the XML data.

1 62. (New) An article of manufacture comprising a program storage medium
2 readable by a computer, the medium tangibly embodying one or more programs of
3 instructions executable by the computer to perform a method for printing XML files directly
4 using a formatting template, the method comprising:

5 placing an XML document to be printed on a server spool;

6 parsing the XML document to identify start tags hierarchically traversed in the XML
7 document to reach an XML data element;

8 searching a data map comprising XML descriptors identified by an associated
9 qualified tag having a concatenation of a plurality of XML start tags until a qualified tag
10 associated with an XML descriptor matches the identified start tags hierarchically traversed
11 in the XML document to reach the XML data element;

12 formatting the XML data element according the XML descriptor associated with the
13 qualified tag having a concatenation of a plurality of XML start tags matching the identified
14 start tags hierarchically traversed in the XML document to reach the XML data element;

15 merging the XML element associated with the XML descriptor associated with the
16 qualified tag having a concatenation of a plurality of XML start tags matching the identified
17 start tags hierarchically traversed in the XML document to reach the XML data element to
18 produce a formatted print data stream; and

19 printing a document using the produced formatted print data stream.

1 63. (New) The article of manufacture of claim 41 further comprising skipping an
2 XML descriptor that does not have a matching qualified tag and using a next XML descriptor
3 matching a start tag to format the XML data.